INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

August 19, 2004

TO: Interested Parties / Applicant

RE: ESM II, Inc / 091-18964-00086

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot 9/16/03

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR QUALITY

ESM II, Inc.
Kingsbury Industrial Park
5th Road, Building 3
Kingsbury, Indiana 46345

(herein known as the Permittee) is hereby authorized to *construct and* operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operating Permit No.: MSOP 091-18964-00086	
Issued by: Original Signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: August 19, 2004 Expiration Date: August 19, 2009

TABLE OF CONTENTS

Compliance Monitoring Requirements

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a grinding and blending process for specialty alloy powders.

Authorized Individual:	Pat Drangmeister
Source Address:	Kingsbury Industrial Park, 5th Road, Building 3, Kingsbury, Indiana 46345
Mailing Address:	P.O. Box 78, Kingsbury, Indiana 46345
General Source Phone:	219-393-5502
SIC Code:	3299
County Location:	LaPorte
Source Location Status:	Nonattainment area for ozone under the 8-hour standard Attainment area for all other criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD or Emission Offset Rules;

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

a) Primary magnesium grinding operations (P001) located in Building #1 processing a maximum of 1,246 lbs of alloy material per hour, processed through one (1) cyclone exhausting to stack (S-1) with material conveyed to four (4) storage silos with vents (V-1,V-2,V-3,V-4);

b) Primary magnesium grinding operations (P002) located in Building #2 processing a maximum of 1,246 lbs of alloy material per hour, processed through one (1) cyclone exhausting to stack (S-2) with material conveyed to four (4) storage silos with vents (V-1,V-2,V-3,V-4);

c) Secondary grinding operations (P003) located in Building #3 processing a maximum of 1,300 lbs of alloy material per hour, processed through one (1) cyclone exhausting to stack (S-3) with material conveyed to a portable bin;

d) Cone blender operations (P-004) processing a maximum of 20,000 lbs of alloy material per hour, controlled by one (1) baghouse, and exhausting at stack (S-4);

e) Two (2) lime storage tankers (P005), handling a maximum of 48,000 lbs of lime per hour, with a maximum storage capacity of 250,000 lbs, controlled by one (1) dust collector exhausting to stack (S-6);

f) Nauta mixer operation (P006) processing a maximum of 20,000 lbs of material per hour, controlled by one (1) dust collector exhausting to stack (S-6);

g) One (1) material dumping station processing a maximum of 1,517 lbs of alloy material per hour, controlled by one (1) baghouse exhausting to stack (S-5);

h) Four (4) silos, loading/unloading a total maximum of 4,000 lbs of alloy material per hour, each

with a maximum storage capacity of 30,000 lbs per silo.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.6 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled “Minor Source Operating Permit”, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.7 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.

(1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

(2) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been

revised pursuant to 326 IAC 2-6.1-6 and 326 IAC 2-2 or 326 IAC 2-3 and an Operation Permit Validation Letter is issued.

(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.

(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

B.8 Phase Construction Time Frame

Pursuant to 326 IAC 2-2-8(Revocation of Permits), the IDEM may revoke this permit to construct if the:

(a) Construction of this project has not begun within eighteen (18) months from the effective date of this permit or if during the construction of this project, work is suspended for a continuous period of eighteen (18) months or more.

The OAQ may extend such time upon satisfactory showing that an extension, formally requested by the Permittee is justified.

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days (this time frame is determined on a case by case basis but no more than ninety (90) days) after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.

(c) A copy of the PMP's shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMP whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

(d) No permit amendment or modification is required for the addition, operation or removal of

a non-road engine, as defined in 40 CFR 89.2.

B.12 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2] [IC13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.13 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch**,** within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

B.14 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.

(b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ – Billing, Licensing and Training Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

Testing Requirements

C.6 Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date.

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14 days) prior to the actual date.

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ (and local agency) not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, (and local agency), if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.7 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Compliance Monitoring Requirements

C.8 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.9 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11]

(a) Whenever a condition in this permit requires the measurement of total static pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (2%) of full scale reading.

(b) Whenever a condition in this permit requires the measurement of a temperature or flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (2%) of full scale reading.

(c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.

(d) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

C.10 Compliance Response Plan - Preparation and Implementation

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall be considered a deviation from the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.11 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected emissions unit while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that re-testing in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the re-testing deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to non-compliant stack tests.

The response action documents submitted pursuant to this condition do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.12 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in

326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.13 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.14 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) Unless otherwise specified in this permit, any quarterly or semi-annual report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by an “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1 EMMISIONS UNITS OPERATION CONDITIONS

Emissions Unit Description:

a) Primary magnesium grinding operations (P001) located in Building #1 processing a maximum of 1,246 lbs of alloy material per hour, processed through one (1) cyclone exhausting to stack (S-1) with material conveyed to four (4) storage silos with vents (V-1,V-2,V-3,V-4);

b) Primary magnesium grinding operations (P002) located in Building #2 processing a maximum of 1,246 lbs of alloy material per hour, processed through one (1) cyclone exhausting to stack (S-2) with material conveyed to four (4) storage silos with vents (V-1,V-2,V-3,V-4);

c) Secondary grinding operations (P003) located in Building #3 processing a maximum of 1,300 lbs of alloy material per hour, processed through one (1) cyclone exhausting to stack (S-3) with material conveyed to a portable bin;

d) Cone blender operations (P-004) processing a maximum of 20,000 lbs of alloy material per hour, controlled by one (1) baghouse, and exhausting at stack (S-4);

e) Two (2) lime storage tankers (P005), handling a maximum of 48,000 lbs of lime per hour, with a maximum storage capacity of 250,000 lbs, controlled by one (1) dust collector exhausting to stack (S-6);

f) Nauta mixer operation (P006) processing a maximum of 20,000 lbs of material per hour, controlled by one (1) dust collector exhausting to stack (S-6);

g) One (1) material dumping station processing a maximum of 1,517 lbs of alloy material per hour, controlled by one (1) baghouse exhausting to stack (S-5);

h) Four (4) silos, loading/unloading a total maximum of 4,000 lbs of alloy material per hour, each with a maximum storage capacity of 30,000 lbs per silo.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.1.1 Particulate Matter [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2 particulate from all processes of the grinding and blending operations shall be limited by the following:

a) The primary grinding operations (Bldg #1) of this steel making specialty alloys manufacturing plant are subject to particulate matter limitations under 326 IAC 6-3-2. Pursuant to this rule, particulate emissions from the primary grinding operations (Bldg. #1) shall be limited by the following equation:

$E = 4.10\ P^{0.67}$ (for process weights up to 60,000 lbs/hr)

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour
P = 1,246 lbs/hr = 0.623 tons/hr

$E = 4.10 * P^{0.67}$ = 2.99 lbs/hr

b) The primary grinding operations (Bldg. #2) of this steel making specialty alloys manufacturing plant are subject to particulate matter limitations under 326 IAC 6-3-2. Process weights of this process are identical to those of primary grinding operations (Bldg. #1). This process thus has identical particulate matter maximum allowable emissions (2.99 lbs/hr), and will likewise comply with the requirements of 326 IAC 6-3-2.

c) The secondary grinding operations (Bldg #3) of this steel making specialty alloys manufacturing plant are subject to particulate matter limitations under 326 IAC 6-3-2. Pursuant to this rule, particulate emissions from the secondary grinding operations (Bldg. #3) shall be limited by the following equation:

$E = 4.10 P^{0.67}$ (for process weights up to 60,000 lbs/hr)
where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour
P = 867 lbs/hr = 0.434 tons/hr

$E = 4.10 * P^{0.67}$ = 2.34 lbs/hr

d) The cone blending system of this steel making specialty alloys manufacturing plant is subject to particulate matter limitations under 326 IAC 6-3-2. Pursuant to this rule, particulate emissions from the cone blender system shall be limited by the following equation:

$E = 4.10 P^{0.67}$ (for process weights up to 60,000 lbs/hr)
where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour
P = 14,500 lbs/hr = 7.25 tons/hr

$E = 4.10 * P^{0.67}$ = 15.46 lbs/hr

e) The lime storage tankers blending system of this steel making specialty alloys manufacturing plant is subject to particulate matter limitations under 326 IAC 6-3-2. Pursuant to this rule, particulate emissions from the cone blender system shall be limited by the following equation:

$E = 4.10 P^{0.67}$ (for process weights up to 60,000 lbs/hr)
where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour
P = 17,500 lbs/hr = 8.75 tons/hr

$E = 4.10 * P^{0.67}$ = 17.54 lbs/hr

f) The Nauta mixer system of this steel making specialty alloys manufacturing plant is subject to particulate matter limitations under 326 IAC 6-3-2. Pursuant to this rule, particulate emissions from the cone blender system shall be limited by the following equation:

$E = 4.10 P^{0.67}$ (for process weights up to 60,000 lbs/hr)
where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

P = 14,500 lbs/hr = 7.25 tons/hr

$E = 4.10 * P^{0.67}$ = 15.46 lbs/hr

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.3 Particulate Matter (PM)

The baghouses for stacks S-1, S-2 and S-3 shall be in operation at all times the there associated processes are in operation, in order to comply with this limit.

D.1.4 Testing Requirements [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this MSOP, in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM and PM-10 testing for on Stacks S-1, S-2, S-3, S-4, S-5 and S-6 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements

D.1.5 Visible Emissions Notation

(a) Visible emission notations of the stack exhaust for the baghouse and cyclone exhaust controlling the grinding and blending operation shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the grinding and blending operations, at least once per shift when the processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records,

and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C -Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.7 Baghouse Inspsections

An inspection shall be performed each calendar quarter of all baghouses controlling the grinding and blending operation when venting to the atmosphere. Inspections required by this condition shall not be performed in consecutive months. All defective baghouses shall be replaced.

D.1.8 Broken or Failed Baghouse Detection

In the event that baghouse failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit. If operations continue after the bag failure is observed and it will be 10 days or more after the failure is observed before the failed units can be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouses pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if baghouse failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-6-4]

D.1.9 Record Keeping Requirements

(a) To document compliance with Condition D.1.5, the Permittee shall maintain records of visible emission notations of the baghouse stack exhaust once per shift.

(b) To document compliance with Condition D.1.6, the Permittee shall maintain records, once per shift, of operational parameters to include inlet and outlet differential static pressure during normal operation when venting to the atmosphere.

(c) To document compliance with Condition D.1.7, the Permittee shall maintain records of the results of the inspections required under Condition D.1.7.

(d) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	**ESM II, Inc.**
Address:	**5th Road**
City:	**Kingsbury, Indiana 46345**
Phone #:	**216-393-5502**
MSOP #:	**091-18964-00086**

I hereby certify that ESM II, Inc. is ☐ still in operation.
☐ no longer in operation.

I hereby certify that ESM II, Inc. is ☐ in compliance with the requirements of MSOP 091-18964-00086.
☐ not in compliance with the requirements of MSOP 091-18964-00086.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMI LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION:
_____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____

_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____
*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____
_____

Mail to: Permit Administration & Development Section
Office Of Air Quality
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206 6015

ESM II, Inc.
P.O. Box 78
Kingsbury, Indiana 46345

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____,I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____ .
(Company Name)

4. I hereby certify that ESM II, Inc., Kingsbury Industrial Park, 5th Road Building 3, Kingsbury, Indiana, 46345, completed construction of the grinding and blending process equipment for the specialty alloy powders operation on _____in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on April 26, 2004 and as permitted pursuant to **Minor Source Operating Permit No. CP-091-18964, Plant ID No. 091-00086** issued on _____

5. Additional (?operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit. (Delete this statement if it does not apply.)

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief._____
Signature

_____
Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 20 _____ .

My Commission expires: _____

_____
Signature

_____

Name (typed or printed)

Indiana Department of Environmental Management
Office of Air Quality
Technical Support Document (TSD) for a Minor Source Operating Permit Renewal

Source Background and Description

Source Name:	**ESM II, Inc.**
Source Location:	**5th Road, Kingsbury, Indiana 46345**
County:	**LaPorte**
SIC Code:	**3299**
Operation Permit No.:	**091-5647-00086**
Construction Permit Issuance Date:	**September 10, 1998**
MSOP No:	**091-18964-00086**
Permit Reviewer:	**Walter Habeeb**

The Office of Air Quality (OAQ) has reviewed an application from ESM II, Inc. relating to the construction and operation of grinding and blending specialty alloy powders.

History

This source was issued a Construction Permit CP 091-5647-00086 on September 10, 1998. ESM II, Inc. never submitted an Affidavit of Construction as required by CP 091-5647-00086 and therefore never received a valid operation permit.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission units and pollution control devices:

a) Primary magnesium grinding operations (P001) located in Building #1 processing a maximum of 1,246 lbs of alloy material per hour, processed through one (1) cyclone exhausting to stack (S-1) with material conveyed to four (4) storage silos with vents (V-1,V-2,V-3,V-4);

b) Primary magnesium grinding operations (P002) located in Building #2 processing a maximum of 1,246 lbs of alloy material per hour, processed through one (1) cyclone exhausting to stack (S-2) with material conveyed to four (4) storage silos with vents (V-1,V-2,V-3,V-4);

c) Secondary grinding operations (P003) located in Building #3 processing a maximum of 1,300 lbs of alloy material per hour, processed through one (1) cyclone exhausting to stack (S-3) with material conveyed to a portable bin;

d) Cone blender operations (P-004) processing a maximum of 20,000 lbs of alloy material per hour, controlled by one (1) baghouse, and exhausting at stack (S-4);

e) Two (2) lime storage tankers (P005), handling a maximum of 48,000 lbs of lime per hour, with a maximum storage capacity of 250,000 lbs, controlled by one (1) dust collector exhausting to stack (S-6);

f) Nauta mixer operation (P006) processing a maximum of 20,000 lbs of material per hour, controlled by one (1) dust collector exhausting to stack (S-6);

g) One (1) material dumping station processing a maximum of 1,517 lbs of alloy material per hour,

controlled by one (1) baghouse exhausting to stack (S-5);

h) Four (4) silos, loading/unloading a total maximum of 4,000 lbs of alloy material per hour, each with a maximum storage capacity of 30,000 lbs per silo.

Existing Approvals

The source has been operating under previous approval Construction Permit 091-5647-00086.

All conditions from this previous approval were incorporated into this permit.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the cyclones of the P001,P002 and P003 operations be considered as an integral part of the process:

(a) The cyclones are used to collect all of the product from the process, therefore it was determined by IDEM in the construction permit to considered them to be an integral part of the normal operation of the facility. This process remains unchanged therefore the cyclones will still be considered an integral part of the process.

IDEM, OAQ has evaluated the justifications and agreed that the cyclones of the P001,P002 and P003 operations will be considered as an integral part of the process. Therefore, the permitting level will be determined using the potential to emit after the cyclones. Operating conditions in the proposed permit will specify that the cyclones shall operate at all times when the process is in operation.

Enforcement Issue

(a) IDEM is aware that equipment has been operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled “Unpermitted Emission Units and Pollution Control Equipment”.

(b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

(c) IDEM is aware that the source did not apply for a MSOP renewal in a timely manner. IDEM is reviewing this matter and will take appropriate action.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (^{o}F)
S-1	P001	15	1.417	6000	150
S-2	P002	15	1.417	6000	150
S-3	P003	15	1.417	4500	150
S-4	P004	10	0.667	1500	70
S-5	P005	15	1.417	4000	70
S-6	P006	4.5	0.5	2100	70

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on April 26, 2004.

Emission Calculations

See Appendix A (page 1 of 1) of this document for detailed emission calculations.

Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, inclulding air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential to Emit (tons/yr)
PM	51.92
PM-10	45.24
SO_2	0.00
VOC	0.00
CO	0.00
NO_x	0.00

The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.

County Attainment Status

The source is located in LaPorte County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	Nonattainment *
CO	attainment
Lead	attainment

* effective June 15, 2004

(a) Laporte County has been classified as attainment or unclassifiable for all particulate. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(b) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) emissions are not counted toward determination of PSD and Emission Offset applicability.

(c) LaPorte County has been classified as nonattainment for ozone. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.

Source Status

Existing Source PSD, Part 70, or FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	21.13
PM-10	18.22
SO_2	0.00
VOC	0.00
CO	0.00
NO_x	0.00
Single HAP	0.00
Combination HAPs	0.00

(a) This existing source is not a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or greater and it is not in one of the 28 listed source categories..

Proposed Modification

PTE from the proposed modification (based on 8760 hours of operation per year at rated capacity including enforceable emission control and production limit where applicable):

Pollutant	PM (ton/yr)	PM-10 (ton/yr)	SO_2 (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO_x (ton/yr)
Proposed Modification- Nauta Mixer	3.81	1.91	0.00	0.00	0.00	0.00
PSD or Offset Threshold Level	100	100	100	100	100	100

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD major source levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability

There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) applicable to this source.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in LaPorte County and the potential to emit of PM or PM_{10} is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitation), opacity shall meet the following, unless otherwise stated in the permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability – Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this source will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-3-2 (Particulate Emission Limitations)

Pursuant to 326 IAC 6-3-2 (Particulate emission limitations) this source shall operate the grinding and blending process so as not to produce, cause, suffer or allow particulate matter to be emitted in excess of the following limits for each process.

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ (for process weights up to 60,000 lbs/hr)
where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

a) The primary grinding operations (Bldg #1) of this steel making specialty alloys manufacturing plant are subject to particulate matter limitations under 326 IAC 6-3-2. Pursuant to this rule, particulate emissions from the primary grinding operations (Bldg. #1) shall be limited by the following equation:

$E = 4.10\ P^{0.67}$ (for process weights up to 60,000 lbs/hr)
where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour
P = 1,246 lbs/hr = 0.623 tons/hr

$E = 4.10 * P^{0.67} = 2.99$ lbs/hr

b) The primary grinding operations (Bldg. #2) of this steel making specialty alloys manufacturing plant are subject to particulate matter limitations under 326 IAC 6-3-2.

Process weights of this process are identical to those of primary grinding operations (Bldg. #1). This process thus has identical particulate matter maximum allowable emissions (2.99 lbs/hr), and will likewise comply with the requirements of 326 IAC 6-3-2.

c) The secondary grinding operations (Bldg #3) of this steel making specialty alloys manufacturing plant are subject to particulate matter limitations under 326 IAC 6-3-2. Pursuant to this rule, particulate emissions from the secondary grinding operations (Bldg. #3) shall be limited by the following equation:

$E = 4.10 P^{0.67}$ (for process weights up to 60,000 lbs/hr)

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour
P = 867 lbs/hr = 0.434 tons/hr

$E = 4.10 * P^{0.67} = 2.34$ lbs/hr

d) The cone blending system of this steel making specialty alloys manufacturing plant is subject to particulate matter limitations under 326 IAC 6-3-2. Pursuant to this rule, particulate emissions from the cone blender system shall be limited by the following equation:

$E = 4.10 P^{0.67}$ (for process weights up to 60,000 lbs/hr)

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour
P = 14,500 lbs/hr = 7.25 tons/hr

$E = 4.10 * P^{0.67} = 15.46$ lbs/hr

e) The lime storage tankers blending system of this steel making specialty alloys manufacturing plant is subject to particulate matter limitations under 326 IAC 6-3-2. Pursuant to this rule, particulate emissions from the cone blender system shall be limited by the following equation:

$E = 4.10 P^{0.67}$ (for process weights up to 60,000 lbs/hr)

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour
P = 17,500 lbs/hr = 8.75 tons/hr

$E = 4.10 * P^{0.67} = 17.54$ lbs/hr

f) The Nauta mixer system of this steel making specialty alloys manufacturing plant is subject to particulate matter limitations under 326 IAC 6-3-2. Pursuant to this rule, particulate emissions from the cone blender system shall be limited by the following equation:

$E = 4.10 P^{0.67}$ (for process weights up to 60,000 lbs/hr)

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour
P = 14,500 lbs/hr = 7.25 tons/hr

$E = 4.10 * P^{0.67} = 15.46$ lbs/hr

The baghouses for stacks S-1, S-2 and S-3 shall be in operation at all times the there associated processes are in operation, in order to comply with this limit.

Conclusion

The construction and operation of this grinding and blending of specialty alloy powders shall be subject to the conditions of the Minor Source Operating Permit 091-18964-00086.

Appendix A - Source Emission Calculations

Company Name: ESM II, Inc.
Address City IN Zip: 5th Road, Kingsbury, Indiana 46345
Permit No.: 091-18964
Plt ID: No 00086
Reviewer: Walter Habeeb
Date: May 3, 2004

Potential To Emit				
Source	**PM**		**PM10**	
	Lb/hr	**TPY**	**Lb/hr**	**TPY**
P001 Primary Mg Grinding, Bldg 1 *	0.93	4.07	0.93	4.07
P002 Primary Mg Grinding, Bldg 2 *	1.35	5.89	1.35	5.89
P003 Secondary Mg Grinding, Bldg 3 *	1.59	6.95	1.59	6.95
P004 Cone Blending **	0.87	3.81	0.435	1.91
P005 Lime Storage Tankers ***	5.26	23.40	5.26	23.40
P006 Nauta Mixer **	0.87	3.81	0.435	1.91
V1,V2,V3,V4 Fugitive Silo Vents **	0.12	0.53	0.06	0.26
Fugitive Vehicle Traffic (Del & Ship) ****	0.97	3.46	0.24	0.84
Total		**51.92**		**45.24**

Methodology:
* Emissions based on stack test on Oct. 22-23, 1996
** Emissions based on AP-42 Table 11.24-2
*** Emissions based on AP-42 Table 11.17-4
**** Emissions based on Section 13.2.1 & 13.2.2

Controlled Emissions				
Source	**PM**		**PM10**	
	Lb/hr	**TPY**	**Lb/hr**	**TPY**
P001 Primary Mg Grinding, Bldg 1 *	0.93	4.07	0.93	4.07
P002 Primary Mg Grinding, Bldg 2 *	1.35	5.89	1.35	5.89
P003 Secondary Mg Grinding, Bldg 3 **	1.59	6.95	1.59	6.95
P004 Cone Blending ***	0.009	0.038	0.004	0.019
P005 Lime Storage Tankers ***	0.044	0.19	0.044	0.19
P006 Nauta Mixer ***	0.0008	0.004	0.004	0.002
V1,V2,V3,V4 Fugitive Silo Vents	0.12	0.53	0.06	0.26
Fugitive Vehicle Traffic (Del & Ship)	0.97	3.46	0.24	0.84
Total		**21.13**		**18.22**

Methodology:
* Emissions based on maximum production of 1,246 lb/hr
** Emissions based on maximum production of 867 lb/hr
*** Based on baghouse efficiency of 99%

Potential Uncontrolled Emissions = Max. Material Rate(lb/hr) * (1 ton/2000lb) * Emission Factor (lb PM/ton) * (1 ton/2000lb) * (8760 hr/yr)
Potential Controlled Emissions = Potential Uncontrolled Emissions * (1-Control Efficiency)